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European Union regional policy with particular emphasis on the area of innovation

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Abstract

Innovativeness is closely linked with the development of the economy. In the literature it is often mentioned as one of the key drivers of economic growth, primarily in the sense of raising the level of education, infrastructure, health, the environment, etc. Innovation contributes to raising the level and quality of social life and thus to leveling social inequalities. A characteristic feature of modern economy is growing awareness of the role of knowledge and innovation in generating economic progress.

Regional policy led in the European Union countries is the basis of work consideration. This policy, especially in the aspect of innovation is the one of the most important policies. The aim of this paper is therefore to present the evolution of the concept of regional policy of the European Union in the context of European integration. The author pays special attention to the aspect of innovation in the European Union regions, which is going to play an important role in integrating Europe over the next few years.

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1. Introduction

The ongoing economic growth has contributed to changes in the perception of innovation, in particular with respect to small and medium-sized enterprises, which are its main carrier. Innovation is currently understood as development based on new challenges particularly with regard to the changes of technology and workmanship. In a broader sense innovativeness should be referred to the continuous search for solutions, the implementation of which will contribute to the success of the company in the form of increased sales, increased market share or increased efficiency. Through innovations companies achieve competitive advantage in the market.

In recent years the role of innovations and innovativeness in the development of the economy of the region has been more appreciated than that of the country. These are the factors that play a special role in the region's development policy and their importance is visible in policy documents setting out government policy in the context of long-term development of the region, as well as in European papers. Innovativeness thus becomes a determinant of the development of Polish regions.

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The disparities in regional development have been present in the policies pursued by individual economies for centuries. Inability to deal with this matter resulted primarily from the lack of basis for the functioning of regional policy. Economic reality in the member counties of the European Union, however, forced the evolutionary approach to the sphere of economic life, which is the regional policy. In the era of the formation of functioning of the European Union's regional policy increasingly important is becoming the knowledge about the effects of European integration.

Hypotheses:

H1: Regional policy is the one of the most important policies led by European Union

H2: Innovation play great role in the development of European Union regions.

2. Literature Review and Research Questions

2.1. Literature review

The lexicon of regional policy indicates that in the context of the European Union the regional policy means an intended influence, in a form of intervention, of the authorities and European institutions on economic growth and social development in order to achieve sustainable development (Kundera, Szmyt, 2008, s.78.) This definition means that the entire regional policy realized within the European Community or by the authorities of individual countries refers to the creation of equal opportunities of development for the regions and especially to helping underdeveloped areas with severe underdevelopment. The efforts made by the European Union in the area of regional policy focus on strategic activities carried out in cooperation with governments of voivodships and other local government entities whose purpose is to improve the competitiveness of the economies of individual regions, to create equal development opportunities and to achieve social, territorial and spatial cohesion (Grosse, p.14.)

The regional policy of the European Union together with the actions taken by the government of the member country can bring benefits to the entire European Community. The reasons for combining these policies are:

- Financing. Poor member countries are not able to solve their own regional problems, so the European Union grants financial aid to mitigate the negative effects of regional issues.
- Achieving externalities. Solving regional problems in one region or member country is beneficial for the entire Union, even by gaining new experiences that can form the basis for further evolution of regional policy.
- Achieving the effects of integration. It primarily means the activation of redistribution mechanism which helps reduce disparities within the Community.
- Coordination of other policies (Apap, Kaniewska, Sitek, Walewski, Szczygielski ed, 2003, p. 30)
- Reduction of Poverty, (Dearen, 2004, p. 17) that is why the developing, low-income countries often have the priority in the allocation of resources within the European Union's regional policy.

Contemporary regional policy on different levels, e.g. regional, national and European, is characterized by a high degree of intervention. The regional level is represented mainly by local authorities which carry out regional objectives by helping local entrepreneurs. On the national level, regional policy aims at reducing the inter-regional disparities within the country, while the European level refers to the regional policy on a global scale, which primary goal is to achieve a similar level of economic development of all European Union countries. On all those three levels, there are tasks, which main objective is eliminating disparities in regional development. The current form of regional policy within the European Community resulted from many factors, which over time enabled the process of evolution from the regional policy with a very limited scope to the policy being an essential element of economic policy.

The issue of regional development based on common principles has been ignored for many years. For a long time it did not become the subject of solutions applied within the Community and was taking the form of a declaration rather than concrete actions and solutions. It was the adequate annotations of the 1957 Treaties of Rome, establishing the European Economic Community and the European Atomic Energy Community, which included concern for the development of regions in the EU member countries. One of the major activities of the Community at the time was expanding resources through the valorization of regions lagging behind and the use of unemployed workforce (Pietrzyk, 2004, p.62). It was the de facto the first material evidence of the existence of contemporary regional policy. The purpose of the newly established European Economic Community was to strengthen the unity of the economies by ensuring their harmonious development (Tkaczyński, Marmot, Villa, 2008, pp. 43-46). It was expected that the effect of the EEC will be a reduction of development disparities between regions. With the establishment of the European Economic Community the European Social Fund and the European Investment Bank started functioning and have been operating until now. The first one to a large extent carries out the tasks from the field of human resources, while the European Investment Bank is an

instrument which aims at increasing the competitiveness of weaker regions through investment in modernization and creation of new businesses (Wojtaszczyk, 2005, p. 33-34).

The modern structure of economic activity, innovativeness, accessibility of the region and the qualifications of the labor force, good condition of the technical and economic infrastructure, the presence of research institutions and higher education institutions in the region, good environmental conditions, allocation of land for investments and developed structure of institutions of business environment are fundamental factors characterizing the fastest growing regions in the EU (Dorożyński 2007). The activities undertaken within the European Union aim at promoting pro-innovative attitudes, in particular in small and medium-sized enterprises. One of the objectives of the Union in the field of pro-innovative policy on regional level is to introduce mechanisms encouraging the implementation of innovative solutions at all stages of development of the company so that the regions are becoming more competitive. It should be emphasized that building a competitive advantage relies heavily on innovation in the area of products, organization, optimization of management, improvement of outdated, often inefficient processes and introducing new ones, bringing new potential and development possibilities (Kubiak 2011).

Innovations and innovativeness are major factors determining social and economic development of regions. On a regional level innovation and innovation play a particularly important role. The Polish regional policy approach to innovativeness means primarily the creation of new resources in the regions and not as in the past, actions aiming at optimizing the allocation of resources that already exist.

In recent years, a growing importance of regions in shaping the socio-politico-economic development of the country have been observed. The growth of importance of the region as a specific economic entity is one of more important phenomena of modern economy (Sokołowicz 2008). At regional level it seems to be more appropriate to create pro-innovative policies that are correlated with specific conditions of the region. Innovations in the regions are the result of association of information with knowledge and transforming them into new products, services, new market solutions. The development of Polish regions will be continued in a sustainable way only when businesses located there, the institutions supporting the business environment, universities, research institutions, self-government organizations will support innovation processes in all areas of economic activity.

The Polish regional innovation policy is a relatively new area of activity of regional authorities. Together with Poland's accession to the European Union there has been a gradual increase in interest in regional innovativeness, especially in the context of increasing competitiveness of the economy. The growing importance of innovation policy stems from the growing importance of innovation for economic and social development. Innovations, in comparison to the traditional drivers of economic growth, are becoming a primary factor of the development process determining the level of competitiveness of individual entities (Nowakowska 2010).

Innovation policy is defined as the intentional and purposeful activities of public authorities, directly or indirectly aiming at supporting innovativeness and thus competitiveness of the economy. The aim of innovation policy is to support innovativeness of the economy through government programs and various instruments allowing the state to influence the level of innovativeness of individual entities and sectors. Innovation policy is a strategic part of the structural policy, which goal is to ensure the efficiency of the national innovation system[†]. It should be noted that the innovation processes are taking place in companies which, even if they are global companies, operate primarily in local and regional scale, and therefore innovation policy must be considered in the regional context (*Kierunki zwiększania...*). Innovation policy of the government is implemented by government bodies, that is ministries and relevant agencies. The state creates legal basis for the functioning of the market and implements macroeconomic stabilization policy. It also influences the directions of resource allocation in order to improve the economic efficiency of the economy and shapes programs encouraging the engagement of revenues in innovation.

3. Methodology

The economic and social disparities in the European Union can be easily seen. Their perception does not require precise indicators showing the level of regional and socio-economic development. Currently the richest region of the Community is the Inner London, where the GDP per capita is 290% of the EU-27 average. By contrast, the north-eastern part of Romania is the poorest region and generates only 23% of the average GDP of the EU (Laissy, 2008, p 4). The reason for this huge development gap between countries belonging to the European Union is that regional policy is the responsibility of individual governments. Regional policy based on the

principles of the Community covers primarily the identification of areas and the extent of support for individual governments within independent regional policies of the member countries.

4. Analyses and Results

Regional policy - as it has been repeatedly mentioned, has become in recent years the most important mechanism of reducing regional disparities. The attention in the literature of the subject is drawn to the fact that government intervention should be directed to the poorest regions and its key objective should be restructuring of the economy. In the era of functioning of the European Union it has become one of the key dimensions of its activity. The help provided by the European Communities is crucial also for Poland. The actions taken in order to reduce regional disparities are rational when the dimensions of the problem to be tackled are known and the next stage of this work will therefore be to answer the question: How large are disparities between the regions in Poland? Answering this question will make the objectives and principles of the regional policy of the European Union towards Poland much more clear.

Table 1: The main measures indicating the diversity of Polish regions, as of the year 2008 (CSO, Katowice 2010, pp. 58, 73, 75. *unemployed and the unemployment rate by voivodships, sub-regions and powiats - January-December 2008*, CSO, online document: http://www.stat.gov.pl/gus/5840_1487_PLK_HTML.htm?action=show_archive, GUS, Warszawa 2009, p. 112-113, 166, *Regiony Polski 2010*, Wydział zbiorczych opracowań regionalnych w departamencie badań regionalnych, Warszawa 2010, pp. 4, 20, 24.)

Voivodship	Population density per km ² .	GDP per capita in zł and %	Total output in zł and %	Average salary in zł	Nominal income of households per capita in zł	Unemployment rate	Investment outlays in %	Expenditures on R&D and innovation activity .
Poland	122	33462 (100%)	2670006 (100%)	-	21869	9.1	100%	100%
Dolnośląskie	144	35989 (107,6%)	225663 (8.5%)	2978,50	22612	9.5	8.5	5.9
Kujawsko-Pomorskie	115	28926 (86,4%)	124680 (4.7%)	2589,30	19718	12.6	4.6	1.7
Lubelskie	86	23219 (69,4%)	94170 (3.5%)	2577,68	16253	10.8	3.5	3.1
Lubuskie	72	28709 (85,8%)	60424 (2.3%)	2563,04	19114	11.5	2.0	0.4
Łódzkie	140	31140 (93,1%)	155760 (5.8%)	2621,35	21277	9.1	6.8	5.5
Małopolskie	217	28878 (86,3%)	190170 (7.1%)	2834,67	19115	7.1	7.4	11.6
Mazowieckie	140	52770 (157,7%)	587129 (22.0%)	3997,81	31647	7.4	21.8	43.1
Opolskie	110	28379 (84,8%)	61497 (2.3%)	2770,12	18203	9.1	1.8	0.5
Podkarpackie	118	23101 (69,0%)	97104 (3.6%)	2461,16	15732	12.4	3.6	2.3
Podlaskie	59	24434 (73,0%)	59625 (2.2%)	2642,69	17480	8.9	2.2	1.0
Pomorskie	121	31754 (94,9%)	155108 (5.8%)	3093,90	21495	8.2	6.4	5.2
Śląskie	377	36126 (108,0%)	366436 (13.7%)	3146,66	23741	6.9	12.6	7.9
Świętokrzyskie	109	26763 (80,0%)	68112 (2.6%)	2605,72	17799	13.4	2.6	1.2
Warmińsko-Mazurskie	59	24814 (74,2%)	72953 (2.7%)	2514,85	17399	15.5	2.7	1.0
Wielkopolskie	114	34934 (104,4%)	251346 (9.4%)	2791,97	22845	5.9	9.3	7.9
Zachodniopomorskie.	75	30357 (90,7%)	99828 (3.7%)	2774,61	21430	12.6	4.2	1.6

The purpose of presenting this table is an attempt to explore regional differences in the Polish voivodships. It has to be noted, however, that the presented indicators are fragmentary in nature, which means that the in-depth analysis of regional disparities requires the use of appropriate research methods and the application of adequate measures. Though, the analysis of the table components lets identify fundamental differences between Polish voivodships.

The last step showing differences between Polish regions is identifying, based on the above table, the regions with the best values of indicators and those with the worst and then determining the scale of imbalance between them.

Table 2. The most and the least developed regions in Poland.

The most developed regions:	Population density	GDP per capita	Total output	Average salary	Nominal income of households per capita	Unemployment rate	Investment outlays In %	Expenditures on R&D and innovation activity
Mazowieckie	140	157,7%	22.0%	3997,81	31647	7.4	21.8	43.1
Śląskie	377	108,0%	13.7%	3146,66	23741	6.9	12.6	7.9
Wielkopolskie	114	104,4%	9.4%	2791,97	22845	5.9	9.3	7.9
The least developed regions:								
Warmińsko-Mazurskie	59	74,2%	2.7%	2514,85	17399	15.5	2.7	1.0
Podlaskie	59	73,0%	2.2%	2642,69	17480	8.9	2.2	1.0
Lubuskie	72	85,8%	2.3%	2563,04	19114	11.5	2.0	0.4
Differences between the highest and lowest value.	318	84.7%	19.8 %	1482,96	14167	9.6	19.8	42.7

The data presented in the above table shows the scale of disparities between the richest and the poorest Polish voivodships. Table 2 allowed to make the selection, which showed three most developed regions, i.e. Mazowieckie, Śląskie, Wielkopolskie, and the least developed: Warmińsko-Mazurskie, Podlaskie oraz Lubuskie. Among the indicators used for evaluation of voivodships especially GDP per capita, unemployment rate, investment outlays and expenditures on R&D should be mentioned. In case of the first indicator, a substantial difference is observed between the best performing Mazowieckie and Podlaskie which GDP is about half lower. Not without significance for the GDP per capita is the unemployment rate, and that is why the unemployment is the lowest in areas with high Gross Domestic Product, and vice versa. As can be seen from the table, unemployment in Mazowieckie is two times lower than in the economically weaker Warmia.

Regional disparities among Polish regions are also visible in terms of investments. The highest recorded GDP accompanies a high level of investments, both in fixed assets and in research and innovation. Forerunner in this regard is again Mazowieckie where as much as 20% of all investments in fixed assets and up to 40% on R & D and innovation is incurred around the capital, which leads to the conclusion that Mazowieckie plays the role of the Polish innovation and competitiveness center.

Innovations determine the progress, socio-economic development and prosperity of the society. They interact both at global and regional as well as at the company level. The introduction of innovations should lead to the achievement of pre-planned benefits. This forces the use of instruments allowing to measure and evaluate the effectiveness of innovations (Stępniewski 2004). Complications arise however when it comes to the selection of an appropriate range of indicators that could reliably determine whether the applied innovative solutions are effective and give development opportunities for the region. Therefore both – the economic and social indicators should be used.

Economic indicators are measurable, and therefore their estimation can unambiguously determine whether the project is economically viable. Among the indicators of this type as an example can be given: the level of concentration of investments in innovation, investments of global corporations in a particular country or region, the share of small and medium-sized enterprises in total innovations etc. From an economic point of view, the use of innovative solutions promotes efficiency, as the benefit of such investments is primarily the increase of profits from the sale of new or improved products, improvement of product quality, reduced production time, introduction of automation, and also material savings and increased efficiency of engaged machinery.

Indicators of social nature are as important as those described above, but it is much harder to identify their impact on regional development. The main problem is that they are not measurable. The social indicators resulting from implemented innovations comprise the improvement of occupational safety, organizational changes in the company or the introduction of social security benefits.

There is a multitude of approaches to assessing innovativeness of regions in the literature, which cover different aspects of it. While determining the Innovation Potential Indicator, however, only two variables were taken into account:

- The investment in R & D activities in the voivodeship per 10 thousand inhabitants,
- The percentage of knowledge-based companies/companies forming part of the new economy in the number of companies located in the province, from the list of 500 largest companies in Poland (Eksperytyza...).

Innovation policy has become one of the key elements of regional development policy. The conducted research on innovativeness revealed that further steps are needed to improve the ability to innovate in less developed regions. The European Commission initiated further programs that use previously gained experience. Thus the Regional Innovation Strategies (RIS) were created, considered today as an opportunity to improve the innovativeness of Polish enterprises. As a result of the implementation of the

Regional Innovation Strategy (RIS), the voivodeships evaluate the innovativeness of regions. Each of the RIS should ensure monitoring of the implementation of the Strategy's objectives in the voivodeship. Regional Innovation Strategies were created at different times and as a result of the work of various research teams. Regional Innovation Strategies are supposed to be characterized by:

- public-private partnership and consensus
- should be integrated and multidisciplinary,
- should focus on the demand side,
- should include action plan and clearly defined projects which should result in new and innovative solutions in firms, new and innovative policy programs and networks between companies,
- regions participating in the RIS should exploit the European dimension through cooperation between regions,
- projects completed within the RIS should be evaluated which should allow to learn from new experiences in the future[‡].

The development of Polish regions will be continued in a sustainable way only when local businesses, institutions supporting business environment, universities, research institutions, government organizations will support innovation processes in all areas of economic activity. Regional Innovation Strategies developed in all Polish voivodeships are intended to show the current state of innovativeness of economy in the region and to help in planning activities which should lead to more efficient use of the innovative potential of the region. An important aspect of creating RIS are measures that strengthen business cooperation - particularly with regard to SMEs, research centers, R&D institutions, administration, etc.

5. Conclusion

The debate on the new approach to regional policy functioning within the Multiannual Financial Framework 2014-2020 has been going on for quite a long time. Nevertheless, it still requires a number of arrangements and negotiations. Unfortunately the chances for the start-up of national operational programs of the new cohesion policy at the beginning of 2014 decrease with each passing day. Due to the fact that the negotiations on the general regulations on the EU level of have not been definitely closed, these programs will be implemented with a significant delay.

The innovation processes in the last decade are gaining more regional character which is conducive to strengthening the innovation capacity of firms, particularly SMEs, and to the construction of modern human capital in the region and strengthening regional entrepreneurship. Innovations are the major factor determining the socio-economic development of the region and the strength of the regional economy. They have become so important in recent years that they are regarded by many economists as the most important factors determining the level of international competitiveness of the country. Innovations are nothing more than a mechanism promoting entrepreneurship, activities which allow to give the resources new economic opportunities. They are drivers of economic development allowing an increase of the quality of life of the society.

[‡]

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